

## DISCUSSION GROUP 4

### LUBRICATION

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**Leslie Thilagan** is a Technical Advisor at KBR Houston, Texas. He has over 30 years' experience in design, hydraulics, applications including evaluation and order execution, testing, trouble shooting, technical sales and management in the pump manufacturing industry both in UK and in USA. His experience includes working at David Brown-Bingham pumps in Sheffield, UK (20 years), David Brown-Union Pumps, Rhurpumpen, and Sulzer Pumps in Houston Texas. He obtained his degree in mechanical and production engineering at University of Huddersfield UK. He is a registered professional engineer with State of Texas. He was a Chartered Mechanical Engineer with Institution of Mechanical Engineers in UK and European Engineer with FENAI Belgium.

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**Charles R. (Charlie) Rutan** is Senior Engineering Advisor, Specialty Engineering, with Lyondell Chemical Company, in Alvin, Texas. His expertise is in the field of rotating equipment, hot tapping/plugging, and special problem resolution. He has three patents and has consulted on turbomachinery, hot tapping, and plugging problems all over the world in chemical, petrochemical, power generation, and polymer facilities. Mr. Rutan received his B.S. degree (Mechanical Engineering, 1973) from Texas Tech University. He is a member of the Advisory Committee of the Turbomachinery Symposium, and has published and/or presented many articles.

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**Alex Schaefer** is a mechanical engineer specializing in microprocessor control and system integration. He specializes in design (packaging of equipment for refinery via API 614 and power industry), testing/data acquisition (pressure, temperature, flow, vibration, strain and humidity), and pump and control valve manufacturer product sizing/selection software design and packaging of equipment for refiner and power industry. Mr. Schaefer works for Elliott Group.

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**Jeff Buck** has 32 years of rotating equipment experience covering everything from gas turbines to small pumps. He is currently providing support to the Shell / Motiva refineries and chemical plants in the Americas region. Jeff is a Certified Lubrication Specialist and the lubrication focal point for group. As the Lubrication Focal Point, he works technical issues with lubricants and well a lubes management issues.

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**Brian Pettinato** is Manager of Product Development at Elliott Group in Jeannette, Pennsylvania. He has been with Elliott Group since 1995. His areas of expertise include lateral and torsional rotordynamics, vibration analysis, and the testing and evaluation of fluid film journal bearings. He currently manages a group responsible for compressor and expander technology development. Prior to joining Elliott Group, Mr. Pettinato worked as a project engineer for an aftermarket bearing manufacturer. Mr. Pettinato received his B.S. (Mechanical Engineering, 1989) and M.S. (Mechanical Engineering, 1992) degrees from the University of Virginia. He has coauthored over ten technical papers, and holds one U.S. patent. He is a registered Professional Engineer in the State of Pennsylvania, and is a member of ASME, STLE, and the API 684 rotordynamics task force. He joined the TAC in September, 2012.